

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of attempting to build credentials for a user of a device connected to a network, the method comprising:

- providing, to a first credential builder included in a first device connected to the network, a first credential descriptor that describes a plurality of credentials;
- configuring the first credential builder based on the first credential description to build at least one of the credentials described by the first credential descriptor;
- using the first credential builder to attempt to build the at least one of ~~the credentials~~ credential described by the credential descriptor;
- ~~providing~~ sending a second credential descriptor that describes at least one credential described in the first credential descriptor, but not built by the first credential builder from the first credential builder to a second credential builder included in a second device connected to the network; ~~and~~
- configuring the second credential builder based on the second credential description to build at least one of the credentials described by the second credential descriptor; and
- using the second credential builder to attempt to build the at least one credential described by the second credential descriptor ~~provided to the second credential builder.~~

2. (Currently Amended) The method of claim 1 further including:

- providing the credentials built using the first and second credential builders to a credential evaluator included in the first device or the second device; and

5 evaluating the built credentials by using the credential evaluator to
6 determine whether the built credentials satisfy the first credential descriptor
7 for the device.

1 3. (Currently Amended) The method of claim 1 further including:
2 providing the credentials built using the first and second credential
3 builders to a credential evaluator included in a device connected to the
4 network that is different from the first and second devices; and
5 evaluating the built credentials by using the credential evaluator to
6 determine whether the built credentials satisfy the first credential descriptor
7 for the device.

1 4. (Currently Amended) The method of claim 1 further including:
2 ~~providing~~ sending a third credential descriptor that describes at least
3 one credential not built in the second building step from the second credential
4 builder to the first credential builder; and
5 attempting to build credentials corresponding thereto by using the first
6 credential builder.

1 5. (Currently Amended) The method of claim 1 further including:
2 ~~providing~~ sending a third credential descriptor that describes at least
3 one credential not built by using either the first or the second credential
4 builder from the second credential builder to a third credential builder included
5 in a device connected to the network that is different from the first and second
6 devices; and
7 using the third credential builder to attempt to build at least one
8 credential described by the third credential descriptor ~~provided to the third~~
9 ~~credential builder~~.

1 6. (Currently Amended) The method of claim 1 further including generating
2 the first credential descriptor for the device.

7-10 (Canceled).

11. (Currently Amended) A method of attempting to build credentials for a user of a device, the method comprising providing a master credential descriptor including at least one credential descriptor to a master credential builder that includes a plurality of credential builders, each of which:

- A) is associated with a respective credential type;
- B) takes an input that includes an input set of ~~zero or more~~ credentials and an input credential descriptor that describes at least one credential to be built;
- C) attempts to build a given credential described by the credential builder if the given credential is of the credential type associated with that credential builder; and
- D) generates an output that includes:
 - i) an output set of credentials that includes the input set of credentials as well as any credential that that credential builder has been successful in building; and
 - ii) an output credential descriptor that describes each credential described by the input credential descriptor that that credential builder has not been successful in building,

the credential builders being dynamically selected based on credential descriptors in the master credential descriptor and being linked in a series based on credential descriptors in the master credential descriptor in such a manner that the input credential descriptor and set of credentials of each credential builder but the first credential builder in the series include the output credential descriptor and set of credentials of the preceding credential builder; and

29 employing the master credential builder to attempt to build at least one
30 credential described by the master credential descriptor.

1 12. (Previously Presented) The method of claim 11 wherein, if the
2 master credential builder has built credentials as a result of having
3 attempted to build credentials, the method further includes:
4 providing the credentials built by using the master credential builder
5 to a master credential evaluator that includes a plurality of credential
6 evaluators for evaluating a corresponding plurality of different types of
7 credentials for the device; and
8 using the master credential evaluator to evaluate the credentials
9 provided thereto to determine whether those credentials satisfy the
10 credential descriptor for the device.

1 13. (Previously Presented) The method of claim 11 further including
2 generating the credential descriptor for the device.

14-16 (Canceled).

1 17. (Currently Amended) A method of attempting to build credentials for a
2 user of a device, the method comprising:
3 providing a master credential descriptor including at least one
4 credential descriptor to a master credential builder, the master credential
5 builder including at least one credential builder that:
6 A) is associated with a respective credential type;
7 B) takes an input that includes an input set of ~~zero or more~~
8 credentials and an input credential descriptor that describes at
9 least one credential to be built;
10 C) attempts to build a given credential described by the credential
11 builder if the given credential is of the credential type associated
12 with that credential builder; and

13 D) generates an output that includes:

- 14 i) an output set of credentials that includes the input set of
15 credentials as well as any credential that that credential
16 builder has been successful in building; and
- 17 ii) an output credential descriptor that describes each
18 credential described by the input credential descriptor that
19 that credential builder has not been successful in building;

20 dynamically adding at least one different credential builder to the
21 master credential builder based on credential descriptors in the master
22 credential descriptor to form a modified master credential builder in such a
23 manner that the credential builders are so linked in a series that the input
24 credential descriptor and set of credentials of each credential builder but the
25 first credential builder in the series include the output credential descriptor
26 and set of credentials of the preceding credential builder; and
27 using the modified master credential builder to attempt to build
28 credentials corresponding to at least one of the plurality of credential
29 descriptors.

1 18. (Currently Amended) The method of claim 17 further including:
2 providing the credentials built by the modified master credential builder
3 to a master credential evaluator;
4 forming a modified master credential evaluator by adding to the master
5 credential evaluator different credential evaluators corresponding to at least a
6 portion of the credentials provided in the master credential descriptor to the
7 master credential evaluator; and
8 evaluating the credentials corresponding to at least one of the
9 credential evaluators by using the modified master credential evaluator.

1 19. (Previously Presented) The method of claim 18 further including
2 removing credential evaluators that do not correspond to at least one of
3 the credentials from the master credential evaluator.

20. (Previously Presented) The method of claim 17 further including generating the credential descriptor for the device.

21. (Currently Amended) A method of attempting to build credentials for a user of a device, the method comprising:

providing a master credential descriptor including at least one credential descriptor to a master credential builder, the master credential builder including a plurality of credential builders, each of which:

- A) is associated with a respective credential type;
- B) takes an input that includes an input set of ~~zero or more~~ credentials and an input credential descriptor that describes at least one credential to be built;
- C) attempts to build a given credential described by the credential builder if the given credential is of the credential type associated with that credential builder; and
- D) generates an output that includes:
 - i) an output set of credentials that includes the input set of credentials as well as any credential that that credential builder has been successful in building; and
 - ii) an output credential descriptor that describes each credential described by the input credential descriptor that that credential builder has not been successful in building,

the credential builders being linked in a series in such a manner that the input credential descriptor and set of credentials of each credential builder but the first credential builder in the series include the output credential descriptor and set of credentials of the preceding credential builder;

dynamically removing at least one of the credential builders from the master credential builder based on the credential descriptors in the master credential descriptor to form a modified master credential builder; and

27 using the modified master credential builder to attempt to build
28 credentials corresponding to at least one of the credentials described by the
29 credential descriptor.

22-30. (Canceled)

1 31. (Currently Amended) ~~Apparatus~~ An apparatus used to attempt to build
2 credentials for a user of a device connected to a network, comprising:

3 means for generating for the device a first credential descriptor that
4 describes a plurality of credentials;

5 means for providing the first credential descriptor to a first credential
6 builder;

7 means for configuring the first credential builder based on the first
8 credential description to build at least one of the credentials described by the
9 first credential descriptor;

10 means for using the first credential builder to build the at least one of
11 ~~the credentials~~ credential described by the first credential descriptor;

12 means for ~~providing~~ sending to a second credential builder a second
13 credential descriptor that describes at least one credential described in the
14 first credential descriptor, but not built in the first building step by the first
15 credential builder; and

16 means for configuring the second credential builder based on the
17 second credential description to build at least one of the credentials described
18 by the second credential descriptor; and

19 means for using the second credential builder to build at the least one
20 credential described by the second credential descriptor ~~provided to the~~
21 ~~second credential builder;~~

22 wherein the first credential builder and the second credential builder are
23 included in different devices connected to the network.

1 32. (Currently Amended) A method of evaluating credentials for a user of a
2 device, comprising:

3 providing a master credential descriptor and a plurality of credentials for
4 the device to a master credential evaluator including a plurality of credential
5 evaluators, each of which:

6 A) is associated with a respective credential type;

7 B) takes an input that includes an input set of at least one credential
8 and an input credential descriptor that describes at least one
9 credential to be evaluated;

10 C) attempts to evaluate a given credential in the input set if the
11 given credential is described by the credential descriptor and is
12 of the credential type associated with that credential evaluator;
13 and

14 D) generates an output that includes the input set of credentials and
15 an output credential descriptor that describes each credential that
16 is described by the input credential descriptor but has not
17 successfully been evaluated by that credential evaluator,

18 the credential evaluators being dynamically selected based on the master
19 credential descriptor and being linked in a series in such a manner that the
20 input credential descriptor and set of credentials of each credential evaluator
21 but the first credential evaluator in the series include the output credential
22 descriptor and set of credentials of the preceding credential evaluator; and

23 evaluating the plurality of credentials by using the master credential
24 evaluator to determine whether the plurality of credentials satisfies the master
25 credential descriptor.

1 33. (Currently Amended) A method of evaluating credentials for a user of a
2 device, comprising the steps of:

3 providing a master credential descriptor and a plurality of credentials for
4 the device to a master credential evaluator including at least one credential
5 evaluator, each of which:

6 A) is associated with a respective credential type;
7 B) takes an input that includes an input set of at least one credential
8 and an input credential descriptor that describes at least one
9 credential to be evaluated;
10 C) attempts to evaluate a given credential in the input set if the
11 given credential is described by the credential descriptor and is
12 of the credential type associated with that credential evaluator;
13 and
14 D) generates an output that includes the input set of credentials and
15 an output credential descriptor that describes each credential that
16 is described by the input credential descriptor but has not
17 successfully been evaluated by that credential evaluator;
18 forming a modified credential evaluator by dynamically adding at least
19 one credential evaluator to the master credential evaluator based on the
20 master credential descriptor in such a manner that the credential evaluators
21 are so linked in a series that the input credential descriptor and set of
22 credentials of each credential evaluator but the first credential evaluator in the
23 series include the output credential descriptor and set of credentials of the
24 preceding credential evaluator; and
25 evaluating at least one of the credentials by using the modified master
26 credential evaluator to determine whether the at least one credential satisfies
27 the master credential descriptor.

1 34. (Currently Amended) A method of evaluating credentials for a user of a
2 device, comprising the steps of:
3 providing a master credential descriptor and a plurality of credentials for the
4 device to a master credential evaluator including a plurality of credential evaluators,
5 each of which:

6 A) is associated with a respective credential type;

7 B) takes an input that includes an input set of at least one credential
8 and an input credential descriptor that describes at least one
9 credential to be evaluated;
10 C) attempts to evaluate a given credential in the input set if the
11 given credential is described by the credential descriptor and is
12 of the credential type associated with that credential evaluator;
13 and
14 D) generates an output that includes the input set of credentials and
15 an output credential descriptor that describes each credential that
16 is described by the input credential descriptor but has not
17 successfully been evaluated by that credential evaluator,
18 the credential evaluators being linked in a series in such a manner that the
19 input credential descriptor and set of credentials of each credential evaluator
20 but the first credential evaluator in the series include the output credential
21 descriptor and set of credentials of the preceding credential evaluator;
22 dynamically removing at least one of the credential evaluators from the
23 master credential evaluator based on the master credential descriptor to form a
24 modified master credential evaluator; and
25 evaluating at least one of the credentials by using the modified master
26 credential evaluator to determine whether the at least one credential satisfies the
27 master credential descriptor.

35. (Canceled).